

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-2. (canceled).

3. (withdrawn): A catalyst produced by the process according to claim 1 or 2, which has a platinum content of 0.05 to 5% by weight, a palladium content of 0.05 to 10% by weight, and a specific surface area of 50 to 200 m²/g.

4. (withdrawn): A method for hydrodesulfurization and isomerization of a sulfur-containing hydrocarbon oil, which comprises allowing a light hydrocarbon oil having a sulfur content of 700 ppm by weight or lower and hydrogen to contact with the catalyst according to claim 3 under reaction conditions at a temperature of 160 to 300°C, a pressure of 1.0 to 10.0 MPa, an LHSV of 0.1 to 10 h⁻¹, and a hydrogen/oil ratio of 100 to 1,000 NL/L to achieve isomerization and desulfurization simultaneously.

5. (previously presented): A process for producing a catalyst for hydrodesulfurization and isomerization of a sulfur-containing hydrocarbon oil, which comprises

supporting palladium on a composition comprising a platinum-supported sulfated zirconia and alumina, which comprises conducting the following (1)-(5) in the recited order:

- (1) an alumina-mixing step of mixing a platinum-supported sulfated zirconium hydroxide and pseudoboehmite;
- (2) a molding step of molding the resulting mixture into a catalyst molded form;
- (3) a calcining step in which the molded form is calcined at a temperature of 200°C to 800°C for a period of 0.5 to 10 hours in an oxidizing atmosphere to stabilize it;
- (4) a palladium-supporting step of supporting palladium on the calcined molded form; and
- (5) a calcining step of the palladium-supported product in which the palladium-supported product is calcined at a temperature of 100°C to 800°C for a period of 0.5 to 10 hours in an oxidizing atmosphere to produce a final catalyst.

6. (new): The process for producing a catalyst for hydrodesulfurization and isomerization of a sulfur-containing hydrocarbon oil according to claim 5, wherein the final catalyst has a platinum content of 0.05 to 1.5 % by weight and a palladium content of 0.05 to 0.5 % by weight.